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OBSERVATION OF INTERN TEACHING AS A TECHNIQUE TO IMPROVE TEACHING METHODS USED BY THE OBSERVER. SUMMARY.

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DESCRIPTORS- ANALYSIS OF VARIANCE, BIBLIOGRAPHIES, *CLASSROOM COMMUNICATION, DISADVANTAGED SCHOOLS, ELEMENTARY SCHOOL TEACHERS, INSTRUCTOR COORDINATORS, *INTERACTION PROCESS ANALYSIS, LANGUAGE ARTS, MIDDLE CLASS, OBSERVATION, Q SORT, READING, SCHOOLS, SOCIAL STUDIES, TABLES (DATA), *TEACHER ATTITUDES, *TEACHER INTERNS, *TEACHING SKILLS, VERBAL LEARNING.

THIS EXPERIMENT WAS BASED ON 2 HYPOTHESES--(1) INTERNS WHO LEARN AND APPLY FLANDERS' INTERACTION ANALYSIS WILL BECOME MORE INDIRECT IN THEIR VERBAL CLASSROOM BEHAVIOR THAN INTERNS NOT LEARNING THIS TECHNIQUE. (2) THERE IS A RELATION BETWEEN INTERNS' PERCEPTIONS OF THEIR TEACHING PROBLEMS AND THEIR CLASSROOM VERBAL BEHAVIOR. TWO EXPERIMENTAL GROUPS OF 12 INTERN TEACHERS EACH WERE TRAINED IN INTERACTION ANALYSIS, WHILE A CONTROL GROUP OF 12 WAS NOT. ALL INTERNS TAUGHT AT THE ELEMENTARY LEVEL, HALF OF EACH GROUP IN "MIDDLE-CLASS" SCHOOLS AND HALF IN "UNDERPRIVILEGED" SCHOOLS. DURING THE FALL SEMESTER, INTERNS WORKED 2 TO A BUILDING UNDER A COORDINATING TEACHER. AN OBSERVATION TEAM (PROGRAM DIRECTOR, COLLEGE-CITY SUPERVISOR, GRADUATE ASSISTANT) VISITED 24 EXPERIMENTAL GROUP CLASSROOMS FOR 4 COMPLETE DAYS (12 IN THE FALL, 12 IN THE SPRING) AND 12 CONTROL GROUP CLASSROOMS FOR 2 COMPLETE DAYS (IN THE SPRING) TO RECORD VERBAL BEHAVIOR IN TERMS OF INTERACTION OBSERVED. RESULTS WERE REPORTED IN 4 AREAS--(A) READING, (B) SOCIAL STUDIES, (C) LANGUAGE ARTS, AND (D) TOTAL TALK. ANALYSIS OF VARIANCE WAS USED TO TEST THE FIRST HYPOTHESIS AND A Q-SORT TO TEST THE SECOND HYPOTHESIS. EXPERIMENTAL DATA DID NOT SUPPORT THE HYPOTHESES. A DISCUSSION OF RESULTS AND SUGGESTIONS FOR INTERN TRAINING ARE INCLUDED. (AF)

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Summary

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Institution:	University of Wisconsin Madison, Wisconsin
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SUMMARY

BACKGROUND

Since teaching is a profession that is most often practiced independently, there is a real need to find tools which teachers can use independently to engage in self-evaluation and to ensure the teacher's continued growth. If there is a relation between teacher performance and how they perceive their problems, it is important that teacher educators learn of this in order to help in planning teacher preparation programs. The primary purpose of the study was to assess the effects of learning and using interaction analysis upon the verbal behavior of intern teachers. A secondary aim was to determine the relation between interns' perceptions of their teaching problems and their actual verbal behavior in the classroom.

OBJECTIVES

The research was conducted for two purposes:

(1) to assess the effect of learning and using Flanders' interaction analysis technique upon the verbal behavior of intern teachers;

(2) to determine if there is a relation between interns' perceptions of their teaching problems and their actual verbal behavior in the classroom.

PROCEDURE

The research is concerned with the investigation of two sets of variables, the independent and dependent. The independent variable is comprised of the treatment for two groups of intern teachers. The experimental group experienced training in Flanders' interaction analysis system while the control group did not. The verbal communication patterns of teachers and the problems they perceived are the dependent variable.

The experiment involved 24 intern teachers who were matriculating at the University of Wisconsin-Milwaukee and who were as a part of their pre-certification program teaching in schools of the Milwaukee Public School System.

There were two groups of 12 interns each, a control and an experimental. The control group was comprised of all of the interns selected for the intern program in the second year of operation. The experimental group was made up of all of the interns selected for the intern program in the third year of operation.

The interns were fairly well distributed in relation to sex. In the control group, there were three male interns and nine female. The experimental group had four male interns and eight female. They ranged in age from 24 to age 52.

Interns taught at all grade levels of the elementary school. The control group had eight interns in the lower elementary school, one through three, while the experimental group had eight interns at the upper elementary level, four through six.

One half of the interns in each group taught in schools classed as "middle-class" schools while the other half in each group taught in situations where students were considered to be "under-privileged".

In the fall semester, interns were placed two per building in order to work closely with a coordinating teacher released from classroom teaching to help the two interns. In the spring semester, the coordinating teacher stepped back into a classroom assignment. Sometimes, this necessitated transferring one of the interns to another building in the event there was no other vacancy in the same building for the intern. In such cases, interns were observed not only in a new classroom situation the second semester, but also in a new building under the leadership

of a different principal and school-wide philosophy.

Because of the semester plan of the school system, 36 classrooms were involved in the experiment. Twelve classrooms were visited for the control group, observed in the spring semester only for comparison with the post-test results of the experimental group. Twenty-four classrooms were visited for the experimental group. Twelve of these were the classes interns taught in the fall semester and 12 were those in which interns taught in the spring. Approximately, 1,206 pupils were in these classrooms, ranging from a pupil population of 33 to 35 children per room.

The observation team, composed of the program director, the college-city supervisor, and a graduate assistant, memorized the Flanders' categories and used the instrument to record verbal behavior in the intern teachers' classrooms. A category number was recorded every three seconds for the interaction observed. The numbers were recorded in sequence. The sequence of statements was then entered into a matrix for analysis. From the matrix, an indirect (ID ratio and a revised indirect (RID) ratio was computed.

Indirect ratios (ID) and revised indirect ratios (RID) were procured for all interns in every lesson in-

volving interaction for two complete days of observation for the control group and four complete days for the experimental. Areas the interns taught in common were reading, social studies, and language arts. All interaction recorded from 9:00 A.M. to 3:15 P.M. for each day of observation was also placed on a matrix and these ratios are also reported under "total talk".

Although there were two observers present at all observations, the writer's observations were the ones used for analysis in the study. In all cases the writer, as college-city supervisor, was present with either the program director or the graduate assistant serving as the second observer. A correlation coefficient was computed with all data in each area for both visits using the observers' ID ratios.

The two observers on most occasions placed themselves in the classroom where they were as unobtrusive as possible. They did not in any way enter into the interaction process but merely recorded their observations with Flanders' instrument. If the class left the room for another situation, for example, to a music room or into the gymnasium, the observers followed. There were of course no data collected during the recess periods or lunch hours.

The observed lessons were taught in the regular school day beginning at 9:00 A.M. and continuing until 3:15 P.M. Only sessions with an interaction process are of course involved in data analysis. Generally, most of the lessons were of this category. There were 26 different activities observed ranging from the traditional subject matter classes to games and reprimands.

Not all of the interns taught the same subjects since there was no pre-arranged schedule. In some cases there were no data for specific areas that the writer would have wished to include in the report; for example, several interns did not teach any mathematics on the days of observation. The interaction data for these interns is therefore missing completely and this area cannot be reported. In some classrooms reading, social studies, and mathematics may have been the intern's plan for the day; whereas, in other rooms language arts, social studies, and reading may have been scheduled.

Areas in which equal amounts of data could be found from two days of observation time were reading, social studies, and language arts. These are reported in the analysis. Rather than omit analysis of any collected data, however, the interaction for the entire school day is treated as one large block of data entitled "total talk". This includes the data in reading, social studies,

and language arts plus all of the additional interaction observed during the day of observation. Specifically, "total talk" includes every bit of interaction from 9:00 A.M. to 3:15 P.M. regardless of content or time lines. Four areas of interaction process are therefore reported in the study: (1) reading, (2) social studies, (3) language arts, and (4) total talk.

Seventy-two days of classroom observation are reported in the investigation with a total of 360 hours. Each intern in the control group was observed for 10 hours, five hours per day in April and May, while each intern in the experimental group was observed for 20 hours, five hours per day for four days, two days in September and October and two in April and May.

A total of 204 separate different reading classes were observed, 134 separate social studies classes, and 124 separate language arts classes.

Criteria for selecting the interaction data for each intern were:

(1) Sixty minutes more or less of interaction data were used in each subject area if possible.

(2) Time units for pre- and post-observations were equated for individual interns in the experimental group, selected from the be-

beginning of interaction to a point in time that matched the second observation.

(3) Time units for interns in the control group were composed of as much interaction observed in each area even if over sixty minutes.

An analysis of variance was performed to find the difference in interaction between the control group and the experimental group. This was computed in each of the areas, reading, social studies, language arts, and total talk. It was computed for the ID ratios and RID ratios from the post-observation.

An analysis of variance was also used to determine the difference in the pre- and post-interaction ratios of the experimental group. It was computed for both the ID and RID ratios in the areas of reading, social studies, language arts, and total talk.

An analysis of variance was further used to determine any difference between the two days of visits, Visit I and Visit II for both groups during the post-observations.

The F-test was performed for each analysis of variance to test the difference between variances. The

.01 level of significance was accepted as evidence for accepting the first hypothesis.

The Q-Sort is a technique designed to gain a variety of information related to an individual's problems, feelings, or perceptions. In an effort to determine if perceptions of interns concerning problems of teachers are related to verbal behavior, Robert Bills' Teacher Problems Q-Sort was used in this study. It has 84 teacher problems that permitted the respondents to describe problems of teachers in four dimensions:

(1) Their positive-negative qualities

(2) Their central-peripheral qualities

(3) Their self-non-self qualities

(4) Their present-future-past qualities

The problems of the Q-Sort were concerned with the openness and closedness of teachers in regard to their problems. Problems ranged from "How to make the subject matter interesting and meaningful to all pupils of varying ability" to "Students wanting to be on an equal with teachers".

Scores received from the Q-Sort were correlated with the interaction analysis ID ratios to determine if there was a relation between interns' perceptions of their teaching problems and their verbal behavior in the classroom. The Pearson-product-moment correlation was used in analysis.

RESULTS

The findings of the investigation were as follows:

(1) There was no significant difference between the control group that had no training in Flanders' interaction analysis system and the experimental group that had training as a part of the internship.

(2) There was no significant difference between the two observations for either group during the post-observations.

(3) There was no significant difference between the pre- and post-observation interaction analysis ratios of the experimental group.

(4) There was no relation between the interaction analysis ratios and Bills' Teacher Problems Q-Sort scores.

CONCLUSIONS AND IMPLICATIONS

The conclusions and implications of this study are presented and discussed in relation to two hypotheses:

(1) if interns learn and apply Flanders' interaction analysis technique, they will be-

come more indirect in their verbal classroom behavior than interns not learning this technique;

(2) there is a relation between interns' perceptions of their teaching problems and their verbal behavior in the classroom.

The experimental data do not support these hypotheses and both are therefore rejected.

The conclusions of the study were as follows:

(1) training alone in Flanders' interaction analysis system does not guarantee a change in the verbal behavior of interns in the classroom.

(2) no relation exists between perceptions of teacher problems and verbal behavior for intern teachers.

With the Flanders' system, one analyses the direct influence pattern of a teacher's verbal behavior in the classroom by considering three categories of teacher talk, lecturing, direction giving, and criticising. Precisely, the conclusion states, then, that during observations in the areas of reading, social studies, language arts, and total talk, intern teachers who learned the Flanders' system did not employ greater or lesser amounts of lecturing,

direction giving, or criticizing than intern teachers who did not learn the system.

With the Flanders' system, one also analyzes the indirect influence pattern of a teacher's verbal behavior in the classroom by considering four categories of teacher talk, accepting feeling, praising, using pupils' ideas and questioning. Specifically, then, the conclusion states that during observations in the areas of reading, social studies, language arts, and total talk, intern teachers who learned the Flanders' system did not employ greater or lesser amounts of accepting feeling, praising, using pupils' ideas, and questioning than intern teachers who did not learn the system.

It seems unlikely that grade level taught by interns had any major effect on results in this study. In the control group, eight of the interns taught at the primary level in grades one through three, whereas four interned at the intermediate level in grades four through six. In the experimental group, the reverse was true. Eight interns taught at the intermediate level whereas four interned at the primary level. Both groups, irrespective of grade level, were more direct in classroom verbal behavior than indirect.

Educators declare that to change behavior, the learner must have knowledge about the behavior desired. Possession of information is a necessary but apparently not a suf-

ficient condition to bring about change in behavior. Even with knowledge about the impact of verbal interaction on learners, intern teachers may have perceived their role, as more direct, than indirect in nature. They may have perceived their role as purveyors of information, direction givers, and criticizers. They may have perceived themselves as directors of the learning process rather than as guides, facilitators, or partners in the interaction. They may have seen themselves as only senders of information and not as receivers in which they, too, might have expressed appreciation, sympathised, and accepted students' information. They may have seen themselves as controllers in the classroom, not encouragers of student initiative.

The foregoing suggests several possible extensions of the "training alone" approach. Intern teachers need help specifically with perception or clarification of the teaching role. Rather than to see their role as directors of the learning process, they need aid in seeing their role as stage-setters for dialogue. They need assistance in seeing their part in the dialogue as that of raising questions, appreciatively accepting a student's response, and evoking or guiding thinking for additional responses. They need guidance in how to turn an unfavorable response, if such is the situation, into a positive

contribution. They need guidance in phrasing their own rejection for a discussion in a non-threatening manner. Understanding that there are far fewer occasions to use criticism than they now apparently deem necessary is an area with which they need help.

Instruction in the art of remaining silent is necessary for intern teachers. To remain silent, and to encourage students' initiative needs to be emphasized in instruction. Intern teachers need help in withdrawing or in understanding that continual lecturing or talking is not necessary. A real contribution to the improvement of instruction lies in assisting the intern teachers to perceive that the summum bonum often could be student conceived, student led, and student summarized interaction.

Conceivably, interns need help in clarification of values. Although interns indicated understanding of interaction analysis and indicated attempts at incorporating principles of the system in their teaching, this appeared to exist at only the verbal level. The findings of this study suggest that they actually valued direct verbal behavior in the classroom situation. Krathwohl, Bloom, and Masia declare "...under some conditions the development of cognitive behaviors (possession of information) may actually destroy certain desired affective behaviors and that, instead of a positive relation between growth in

cognitive and affective behavior, it is conceivable that there may be an inverse relation between growth in the two domains."[1] This could explain the observations which showed them to be direct in classroom verbal behavior.

It is possible that pleasing a building principal and coordinating teacher was more important than pleasing the college workers. In many cases, becoming a certified teacher seemed the only aspiration at this point in time for individual interns. Interviews indicated the need of being selected for the program. Conferences with many individual interns throughout the year indicated the financial need to be certified as a teacher. Interns further stated that they desired to be retained in the school system and in most cases to remain in the building where they interned. Interns also indicated the need to be viewed as successful in the classroom by their principal. "Successful" seemed to mean to have the classroom "under control" in all cases. In light of this apparent pressure, interns engaged in direct classroom verbal behavior, which they saw as necessary for survival. This then offset any desire or ability to employ more indirect patterns.

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[1]David Krathwohl, Benjamin Bloom, and Bertram Masia, Taxonomy of Educational Objectives: Handbook II: Affective Domain (David McKay Company, Inc., 1956), p.?0.

The following implications may be drawn from the foregoing conclusions. First, attention must be given to teacher personality, its identification, and improvement. Teacher personality, to the writer, means a symmetrical individual; for only if teachers are symmetrical, whole, complete and balanced, will they be able to help to foster such symmetry or completeness in students. Since Flanders has stated that the verbal behavior of the classroom teacher is an adequate sample of his total behavior, symmetry in verbal behavior is indicative of symmetry in a total behavior pattern. Because the writer equates symmetry with indirect verbal behavior and because she sees indirect verbal behavior as crucial in teacher behavior, then the question of personality analysis becomes evident.

Also concerned with verbal behavior and personality, George Mead, social psychologist, holds that the language one hears plays an essential part in self-making. To help teachers, then, with self-making, intensive study of language holds promise. In this study with interns those who perceived themselves as quite concerned with feelings of students showed little evidence of this in their verbal classroom behavior. In conferencing with interns of the control group during the year, two facts were apparent.

Interns indicated first that they were unable to communicate feelings to students and second that time did not permit such communication. The writer's bias is that in teaching this is an unacceptable situation. Through introducing the Flanders' technique to the second group of interns and with use of the matrix, it was possible to help them be more aware of the specific feeling category. Yet most interns still could not or chose not to verbalize in this area. Those who did, did so with obvious intent; the interns who did verbalize feelings during the year while observers were present would frequently look to the observers to note if they caught the words and others would actually approach the observers as they were recording to see if they recorded that category. It is important to recognize, however, that they were able to make a conscious decision to accept and be aware of feelings. Recalling now Mead's emphasis on the relation of language to "self-making", suggests this entire area as appropriate content in professional courses. With opportunities to engage in analyses of language, the intern may come to an understanding of himself and thus be better able to deal with feelings of students in the classroom.

Flanders has stated that his system of categorizing verbal behavior given central attention to the amount of

freedom the teacher grants to the student. He allows for situations in which a teacher should be primarily direct and others in which he should be primarily indirect. His research shows that students of direct teachers achieve significantly lower than students of indirect teachers whereas students of indirect teachers achieved higher and were less dependent-prone. He has declared that a more indirect approach will stimulate verbal participation by students whereby a teacher is provided information regarding the students' perceptions. With additional information, the teacher is in a better position to help pupils diagnose and clarify goals. Flanders found that a more direct approach increases student compliance with teacher opinion and direction. Students were conditioned to seek the teacher's help and to check with the teacher more often for guidance.

Flanders emphasizes, "One way to interpret the difference between the direct and indirect teacher is in terms of the different roles the teacher is able to play in the classroom. The direct teachers could not shift their styles of interaction as much as the indirect teachers. In effect, the direct teachers had fewer ways of working with students; they could provide only a limited number of roles. On the other hand, the indirect teachers

were capable of providing many different roles and they shifted their roles in a manner consistent with the theories that have already been stated."[2]

Such findings strongly suggest helping interns to achieve flexibility in the classroom behavior. The intern teachers in this study had experiences in summer school before their internship in which they could observe one model of teaching behavior. During the internship, the interns also observed when the coordinating teacher provided demonstration teaching. It may be that these experiences provided opportunities to observe direct rather than indirect patterns. Therefore, if modeling is important, models need to be carefully chosen.

It may be, too, that interns were not willing to risk being different from the "models" they observed. They existed in a very close relation to the coordinating teacher throughout the internship and it is possible that the pattern of the coordinating teacher became the pattern of the intern. Research by Iannaccone has indicated that the cooperating teacher is a strong influence upon the ultimate teaching behavior of student teachers.[3]

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[2]Ned A. Flanders, Interaction Analysis in the Classroom, Manual, (University of Michigan, 1964), p. 60.

[3]Lawrence J. Iannaccone, "Student Teaching a Transitional Study in the Making of a Teacher", Theory Into Practice, Vol. 2, No. 2 (April, 1963), pp. 73-80.

During conferences between interns and supervisors, the interaction viewed was discussed in terms of Flanders' system. Interns indicated they realized when they exerted indirect influence and when they exerted direct influence. They indicated need for more acceptance of feelings and pupils' ideas. They indicated when they could have used less direction and criticism. They indicated, too, when they could have responded with more praise. In some cases, they justified their verbal behavior whereas, in other instances they indicated the pressure of the teaching moment was such that they didn't think until too late to use more praise and less direction and criticism. It may be that even though interns appeared to see opportunities for transfer, their being plunged into actual teaching with so little preparation for the task they were not able to incorporate adequately a technique designed to refine classroom verbal behavior while trying to "survive" as a teacher.

The general conclusion that may be drawn concerning the extent to which interns' perceptions of teacher problems are related to their verbal behavior is that no relation exists between perceptions of teacher problems and verbal behavior for intern teachers. One factor measured by the Bills' instrument is openness and closedness. Judging from the very low range scores on the Teacher Problems Q-Sort,

it may be that the closed-mindedness of the interns made it very difficult for them to change their classroom verbal behavior. Results of the study indicate no relation between the interns' perceptions of their teacher problems and their classroom verbal behavior. It will be remembered that the writer questioned the validity of this instrument with intern teachers because of their limited teaching experience. However, they had had one year plus a summer session in a classroom situation from which to form perceptions in the Q-Sort responses. Selection on basis of openness and apparent ability to maintain an openness is an important factor. If however, the instrument is valid, one can conclude that interns are more closed than open.

Bills' research shows that student teaching is an experience in which negative changes in openness can occur. Perhaps, interns need help in maintaining and developing openness as teachers.

Finally, it must be recognized that much individual attention is required for the optimum growth and development of students. Individualization of instruction may, in many cases, be necessary for helping to foster openness in interns preparing to enter the teaching profession.

FINAL CONSIDERATION

One intern teacher in the project provided knowledge about interaction analysis to his fifth-grade students. He approached his pupils as "future teachers". His students were considered "problem children", "underprivileged", and "difficult to handle". Yet with their knowledge of the system and his participation in the project seminars his interaction ratio was the most indirect of all interns and showed the greatest difference from pre- to post-observations. His students were reported by observers as trying to be indirect in their communication with each other, although their reputation in the past had been that of the class that was most involved in trouble in school and out of school and communication might have been expected to be unusually direct.

Research reviewed for this study had indicated the circular effect in the classroom of a student's behavior on teachers. One path to helping teachers with their classroom verbal behavior is to involve students in analysis of their own.

Teacher preparation and improvements on instruction in general have been approached in a piecemeal fashion. One illustration is the persistence of the terms "preservice" and "in-service" which imply discrete programs, discrete personnel, and discrete purposes. What is needed is the cooperation of all those responsible for raising

the level of the profession: college and public school personnel, interns and student teachers, academic specialists, and also the pupils in the classroom. All individuals concerned, including students, need to understand the problem and must be involved in attempts at solution. Research indicates progress may well lie in this direction.

BIBLIOGRAPHY

There are 52 references listed in the final report.